

***EXAMINER'S AMENDMENT***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Mr. Jonathan M. Harris (Reg. No. 44144) on 05 December 2008.

3. The claims had been amended as follows:

1. (Currently Amended) An electronic system, comprising:
  - a processor;
  - a network interface controller including a hardware port;
  - a source-routed virtual switch implemented in software executed by said processor and including a plurality of software-implemented virtual ports, said virtual ports adapted to provide communication between an application running on said processor and said network interface controller; and
  - an application programming interface ("API") running on said processor and usable by said application to interface with said virtual switch;
  - wherein said electronic system is an end node in a network;
  - wherein said source-routed virtual switch is adapted to receive a packet

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containing routing information, said routing information identifying an application in user application space that accesses said virtual switch; and

wherein said API includes code to cause said virtual switch to open a handle and to post a receive buffer on said handle.

2. (Original) The electronic system of claim 1 wherein said API includes code that permits an application to register itself with the virtual switch to permit a resource to be assigned to said application.

3. (Original) The electronic system of claim 1 wherein said API includes code that permits an application to register itself with the virtual switch to permit a unique identifier to be assigned to said application.

4. (Original) The electronic system of claim 1 wherein said API further includes code to deregister said application from virtual switch to release a resource that has been assigned for use by said application.

5. (Original) The electronic system of claim 1 wherein said API includes code to permit said application to transmit data through said virtual switch to another application.

6. (Canceled).

7. (Currently Amended) The electronic system of claim 1 wherein said code that causes the virtual switch to open a handle and post a receive buffer also includes code to transition said handle between a first state and a second state, said first state indicatinging that the switch has not received data to be provided to said application and said second state indicatinging that the virtual switch has received data to be provided to said application.

8. (Currently Amended) The electronic system of claim 1 wherein said API also includes code for closing said handle.

9. (Previously Presented) The electronic system of claim 1 wherein said API includes code to permit the application to inform the virtual switch that the application is ready to receive data.

10. (Currently Amended) The electronic system of claim 1 wherein said API includes code to permit the application to inform the virtual switch that the application is ready to receive data.

11. (Currently amended) A network, comprising:  
a plurality of end nodes; and  
at least one switch coupling the nodes together;

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wherein at least one of said end nodes includes:

- a processor;
- a network interface controller including a hardware port;
- a virtual switch implemented in software executed by said processor and including a plurality of virtual ports, said virtual ports adapted to provide communication between an application running on said processor and said network interface controller; and
- an application programming interface (“API”) running on said processor and usable by said application to interface with said virtual switch;

wherein said virtual switch is adapted to receive a packet containing routing information, said routing information identifying an application in user application space that accesses said virtual switch; and

wherein said API includes code that permits an application to register itself with the virtual switch to permit a unique identifier to be assigned to said application.

12. (Original) The network of claim 11 wherein said API includes code that permits an application to register itself with the virtual switch to permit a resource to be assigned to said application.

13. (Canceled).

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14. (Original) The network of claim 11 wherein said API further includes code to deregister said application from virtual switch to release a resource that has been assigned for use by said application.

15. (Original) The network of claim 11 wherein said API includes code to permit said application to transmit data through said virtual switch to another application.

16. (Original) The network of claim 11 wherein said API includes code to cause said virtual switch to open a handle and to post a receive buffer on said handle.

17. (Original) The network of claim 16 wherein said code that causes the virtual switch to open a handle and post a receive also includes code to transition said handle between a first state and a second state, said first state indicates that the switch has not received data to be provided to said application and said second state indicates that the virtual switch has received data to be provided to said application.

18. (Original) The network of claim 16 wherein said API also includes code for closing said handle.

19. (Previously Presented) The network of claim 11 wherein said API includes code to permit the application to inform the virtual switch that the application is ready to receive data.

20. (Previously Presented) The network of claim 16 wherein said API includes code to permit the application to inform the virtual switch that the application is ready to receive data.

21. (Currently amended) A computer readable storage medium storing instructions that when executed by a processor cause the processor to implement an application programming interface for a source routed, virtual switch implemented in an end node of a network, said virtual switch implemented in software on a computer, said instructions comprising:

an instruction usable to allocate a resource to an application to permit said application to access said software-implemented, source routed, virtual switch;

an instruction usable to permit said application to transmit data through said software-implemented, source routed, virtual switch;

an instruction usable to receive data provided to said application through said software-implemented, source routed virtual switch;

an instruction usable for the virtual switch to receive a packet containing routing information, said routing information identifying an application in user application space; and

an instruction usable to cause said virtual switch to open a handle and to post a receive buffer on said handle.

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22. (Original) The storage medium of claim 21 further including an instruction usable to deallocate said resource upon said application ceasing using said virtual switch.

23. (Canceled).

24. (Currently amended) The storage medium of claim 21 further including an instruction usable to close said handle.

25.-33. (Canceled)

34. (Previously presented) The electronic system of claim 3 wherein said unique identifier assigned to the application is different than an identifier requested for the application.

***Allowable Subject Matter***

4. Claims 1-5, 7-12, 14-22, 24 and 34 are allowed.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ex. Abdou Seye whose telephone number is (571) 270-1062. The examiner can normally be reached Monday through Friday from 7:30 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, contact the examiner's supervisor, An Meng at (571) 272-3756. The fax phone number for formal or official faxes to Technology Center 3600 is (571) 273-8300. Draft or informal faxes, which will not be entered in the application, may be submitted directly to the examiner at (571) 273-6722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group Receptionist whose telephone number is (571) 272-3600.

/Meng-Ai An/  
Supervisory Patent Examiner, Art Unit 2195

/Abdou Karim Seye/  
Examiner, Art Unit 2194